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ABSTRACT

There is provided a method of identifying DNA responsible for conferring a particular phenotype in a cell which method comprises a) constructing a cDNA or genomic library of the DNA of said the cell in a suitable vector in an orientation relative to a promoter(s) capable of initiating transcription of said the cDNA or DNA to double stranded (ds) RNA upon binding of an appropriate transcription factor to said the promoter(s), b) introducing said the library into one or more of said the cells comprising said the transcription factor, and c) identifying and isolating a particular phenotype of said the cell comprising said the library and identifying the DNA or cDNA fragment from said the library responsible for conferring said the phenotype. Using this technique it is also possible to assign function to a known DNA sequence by a) identifying a homologue(s) of said the DNA sequence in a cell, b) isolating the relevant DNA homologue(s) or a fragment thereof from said the cell, c) cloning said the homologue or fragment thereof into an appropriate vector in an orientation relative to a suitable promoter(s) capable of initiating transcription of dsRNA from said the DNA homologue or fragment upon binding of an appropriate transcription factor to said the promoter(s) and d) introducing said the vector into said the cell from step a) comprising said the transcription factor.